

suppuration was always less. These results ensued whether the ice was supplied only until the commencement of inflammation, as practised by Langenbeck, or when it was kept applied until the wound had almost entirely healed by the second intention. The practice of continuing the application of cold after inflammation has set in has generally been considered a dangerous one by the surgeons of this country; but, contrary to what might have been anticipated, the cases treated on the principles of Esmarck succeeded almost as well as those where Langenbeck's practice was adopted.

"Joints wounded by gunshot are, of course, much less amenable to conservative treatment than where the wound is simply incised. In the former case, to be sure, the wound may be of such slight extent, as regards the joint, that they are not very formidable. There occurred, however, in the above-mentioned campaign, a gunshot wound of the knee-joint, of a very serious nature, which was successfully treated by ice. The patient, a young man, received a shot on the outer side of the thigh; the ball passed obliquely through the outer condyle of the femur, down through the knee, and out through the inner tuberosity of the tibia. Ice was carefully applied for many weeks until the wound had nearly healed, and complete recovery *without* ankylosis followed. Langenbeck was of opinion, that the synovial membranes having, in all probability, escaped injury, had favoured the happy result; but he at the same time attributed the success very largely to the careful application of ice from the commencement. That ice, however, is not sufficient to prevent inflammation, even in those cases where the wound is incised and clean, was evident from Case 2. There, however, as previously stated, the patient's constitution was largely to blame. It would, however, be worth while investigating, whether or not a lower temperature than that produced by ice might not advantageously be employed in some cases where the tendency to inflammation is unusually decided, either from constitutional peculiarity or the nature of the wound. We do not as yet know the lowest temperature at which a part of the body in a normal state may be kept by *dry* cold, without serious interference with its nutrition; still less do we know to what depth of temperature a wounded part may be safely lowered. Should it be found that a lower temperature than that produced by ice can be borne, its production could be effected without much difficulty by the employment of various frigorific mixtures, graduated according to the temperature required; and they could without difficulty be prevented from coming in contact with the wound, by inclosing them in thick gutta-percha bags, and by laying a sufficiently large sheet of the same material between the bag and the wounded part. In applying ice to a wound, common bladders ought never to be used if gutta-percha can be obtained, as they very soon allow the water to ooze through, and, notwithstanding the low temperature, soon undergo decomposition; moreover, gutta-percha is cheaper, and bags can be made very easily, by simply wetting the margins of the pieces to be joined together with chloroform, and holding them in apposition until they dry. In the removal of loose cartilages from the knee-joint by subcutaneous or direct free incision, were ice constantly applied to the part after the operation until all tendency to inflammation had ceased, the serious consequences which have so frequently followed these operations hitherto would in all probability be frequently averted; possibly also its employment might often be found serviceable after subcutaneous section of tendons and several other operations."

32. *The Sequel in Some Cases of Excision of Joints.*—Perhaps the most interesting point connected with a surgical operation is the condition of the patient some years after its performance. It is exactly this point, however, which, owing to a variety of circumstances, is least often recorded. We are glad, therefore, to have the opportunity of noting the condition, at a very recent date, of some patients who underwent excision some years since.

In the year 1859, Mr. Thomas Bryant, of Guy's Hospital, excised the head of the right humerus from a man, aged twenty-three, on account of a chronic disease of the articulation of some months' standing. He adopted the single vertical incision through the deltoid muscle. The case did well. A few weeks since the patient came under observation, and it was learnt that he was then,

and had been for several years, engaged as a coachman, driving a pair of horses. The arm was about an inch and a half shortened, but little or no difference was presented by the two shoulders. The man said that he could use the right arm quite as well as the left; indeed that he could lift a heavier weight with it. He could readily raise it to, but not above, the horizontal line. Mr. Bryant is disposed to think that the line of incision employed has something to do with the successful result. By the plan adopted the deltoid muscle is preserved, its fibres being separated rather than divided.

In August, 1861, Mr. Bryant excised the head of the femur for extensive disease of that bone and disorganization of the hip-joint, in a boy aged five years. The case was fully reported in the *Lancet* of July 12th, 1862. The boy recovered, and has been seen at frequent intervals since. He has now a very useful limb. He can walk and run with facility, and stand upon the affected limb without inconvenience. The leg can be raised as high as its fellow, and rotated with perfect ease. The limb is nearly two inches shortened, but with a high-heeled boot the deformity is little noticed.

A carter, sixty two years old, came under Mr. Bryant's care in August, 1859, with disease of the right elbow-joint following an injury. There was great enlargement and pulpiness about the articulation, with numerous fistulous openings, through which exposed bone could be detected by a probe. Movement of the joint caused crepitation and great pain. The patient refusing to have the joint excised, the arm was fixed upon a splint at an appropriate angle, and constitutional treatment adopted. For three years he persisted in this treatment, but without improvement, and eventually in May, 1862, consented to excision, which was performed. The patient was very troublesome after the operation, refusing to wear a splint, and in other respects disobeying instructions. Nevertheless, a steady convalescence followed, the wounds healing, and the soft parts recovering their natural condition. In six months movement was complete, and he returned to his occupation. When seen recently, it was found that he had been engaged at his work without feeling any inconvenience. He could wield his whip with skill, and it was difficult (looking at the arm) to believe that excision of the joint had been performed.

A man, in whom Mr. Timothy Holmes, of St. George's Hospital, excised the shoulder-joint for extensive disease of the articulation about two years ago, is now employed as a gate-keeper at Kensington Museum. He has a wonderfully useful arm, being able to do almost anything with it. There is some motion at the seat of the joint, but Mr. Holmes thinks that in this and similar cases the essential power of mobility is derived from increased freedom in the movement of the scapula upon the back.—*Lancet*, Jan. 6, 1866.

33. *Trephining the Spine*.—In our number for October last, p. 537, will be found an interesting case of this operation performed by Dr. R. McDonnell, of Dublin.

Another case has recently (Nov. 28th, 1865) been reported to the Royal Medical and Chirurgical Society, by Dr. SAMUEL GORDON. This case is that of a man 31 years of age, who met with an injury of the spine on the 27th of March, 1865. He was thrown from a horse into a ditch while hunting, and was immediately affected with paralysis of the lower limbs, rectum, and bladder. When admitted into the Whitworth Hospital, under Dr. Gordon's care, these symptoms still continued, a bed-sore had formed, and there was incontinence of urine, which fluid was alkaline, and contained copious muco-purulent deposit. One of the vertebræ in the lower part of the spine was displaced. The extent to which the spinous process projected was shown in a cast exhibited. Dr. Gordon performed the operation of trephining at the patient's urgent request on June 3d. The operation lasted fifty minutes, and was not accompanied by much hemorrhage. Soon after the operation signs of improvement were noticed. On the fourth day after it the urine became acid, but this condition did not continue; sensation improved, and some days later there was observed an increase of motor power. After some time the urine, which was sometimes alkaline, sometimes neutral, became permanently acid, power over the bladder was restored, and the patient was conscious of the passage of feces. Within eight weeks he was